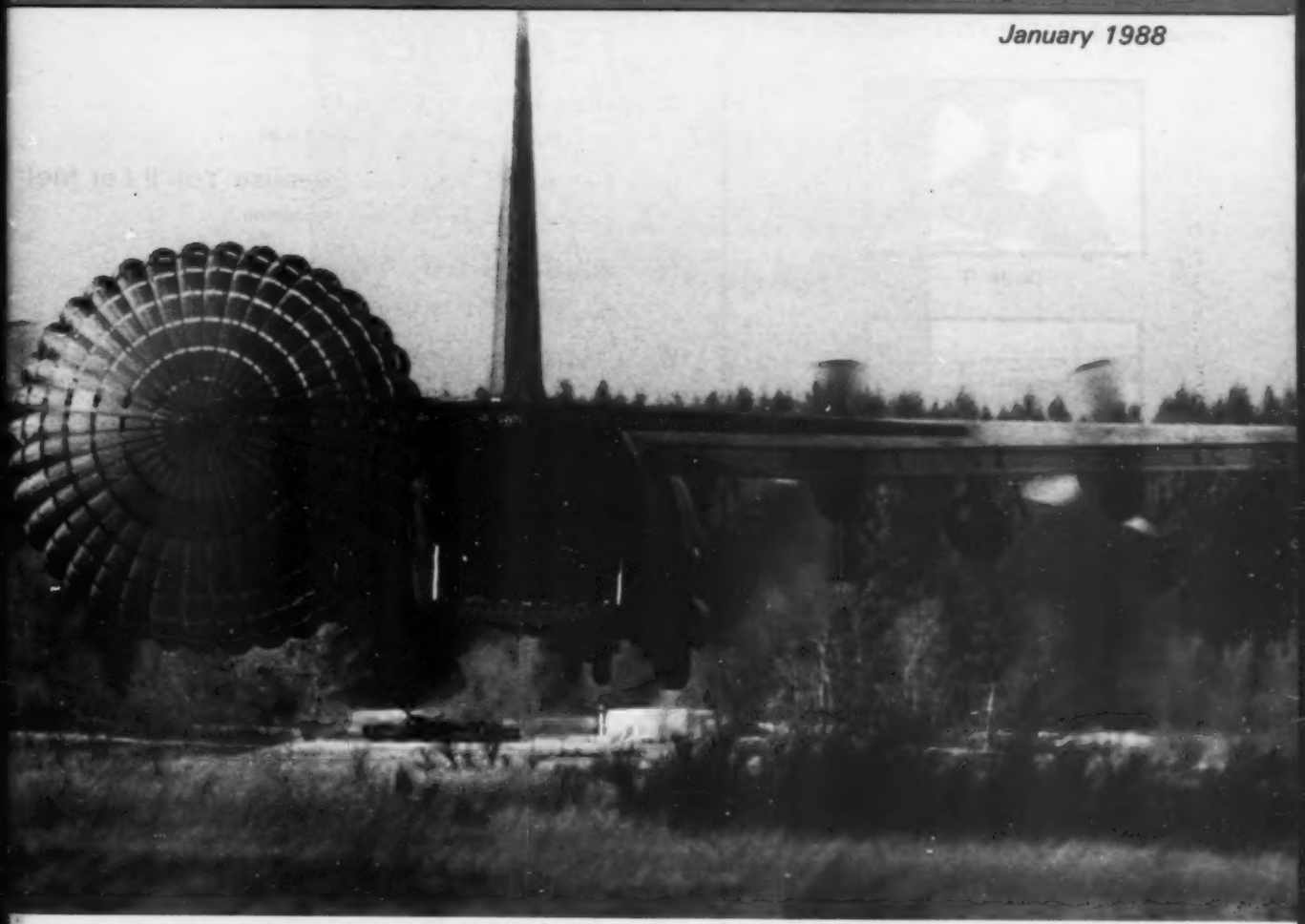
TMF

THE MAC FLYER - For Greater Safety in MAC Air Operations

January 1988



BRIGHT STAR '87 . . . Page 16

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THE MAC FLYER - For Greater Safety in MAC Air Operations

January 1988 MACSP 127-5 Vol XXXV NO.1

page 4

page 24

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The MAC Flyer is published by the Director of Safety, Military Airlift Command. The contents are informative and not regulatory or directive. Names of people and places in mishap stories are representative and not necessarily of the aircraft or equipment involved. Information in any article may not be construed as incriminating under Article 31, UCMJ.

Contributions, comments, and criticisms are welcome. Write: *The MAC Flyer*, HQ MAC/IGFE, Scott AFB, IL 62225-5101, Autovon 576-3534 or area code 618-256-3534. The editors reserve the right to make any editorial changes in manuscripts which they believe will improve the material without altering the intended meaning.

Subscriptions are available from: The Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Changes of address for subscriptions mailing should be sent to GPO. Give both old and new addresses, including zip codes. USAF Active and Air Reserve Forces units establish requirements for the magazine through their publication distributor (DAPD). Other U.S. Military units should consult administrative directives. *The MAC Flyer* is published at an approximate ratio of one magazine for every five MAC aircrew members, and one for every twenty MAC Support personnel. Distribution X: OPR: HQ MAC/IGFE ISSN 0024-786X.

FEATURES

4 **Post-Mission Critique**
I *knew* he was going to prang it in!

8 **I Can Kill You . . . Because You'll Let Me!**
Overcome the reluctance to question.

16 **BRIGHT STAR '87**
Safety in the sand.

18 **More Go-Around Data**
The Starlifter's turn.

19 **HQ MAC Safety Directory**
Who to call for help.

19 ***TMF* Takes a Checkride**
Readership Survey results.

22 **Safety Frustrations**
Examining one of many.

24 **It *Can* Happen . . .**
To the best of us.

27 **READY, SET, WIN!**
Here's your chance.

DEPARTMENTS

7 Excellence in Airmanship
11 Global Notes
12 Mishap With a Moral
23 Flying-Hour Milestones
28 Quick Stoppers
31 After Deadlines

MAC's Vice Commander . . . On Safety

Lt. Gen. Robert D. Springer

We're starting out another exciting year in MAC, and I'm really pleased to be part of the MAC team again. While I served as the Air Force Inspector General, I was extremely gratified by the excellent safety records compiled by MAC as well as the other MAJCOMs. During my tenure there, I saw great strides in flight safety, with both 1985 and 1986 mishap rates at record or near-record levels.

But I gotta tell you that while Air Force mishap rates remained essentially the same for 1987, MAC rates showed an increase. Clearly our rates were well below levels that would have been envied not long ago, but any increase should cause every member of MAC some serious concern. Roughly two-thirds of MAC's mishaps were attributed to operations factors—or people factors. We've got a great team of aviation professionals. They keep the mission moving under some very stressful circumstances. Yet as with every professional group, a short lapse in judgment or performance can have disastrous effects. We have to remember this and we must be aware of our susceptibility to make big mistakes when pressured or stressed. We have to be mentally, physically, and emotionally ready to do our jobs to the utmost of our abilities.

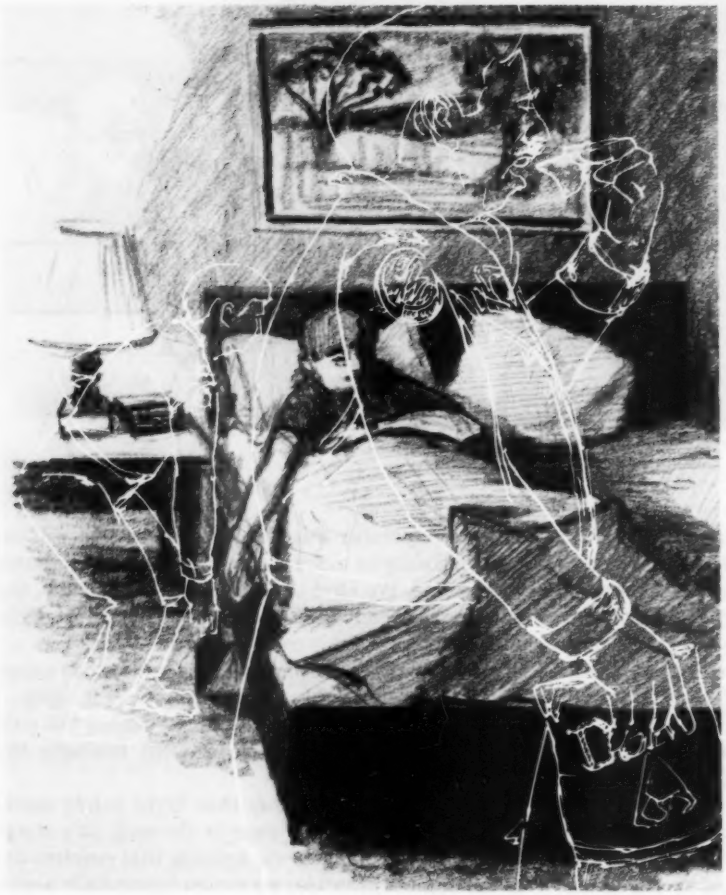
I know that each of our crewmembers has a commitment to fly, fight, and return to do it again. I know that each of you has learned during the past year and that you want to prevent mishaps and preserve MAC assets.

We all must remember that flight safety starts long before we put the gear in the well. It's a continuous frame of mind—an attitude that requires one of the highest priorities we assign to our daily activities. If we allow lesser priorities to replace it, we not only invite disaster but deprive our airlift system of every usable aircraft and mission ready crewmember in time of need. Let's all review our safety priorities and have a super-safe 1988.

POST-MISSION CRITIQUE

One more mission like this one . . . .

By Capt. Thomas A. Farrier
HQ AFSC/IGFF
Andrews AFB, Maryland



Cal pulled up in front of his town house bleary-eyed with fatigue. He noted the absence of lights with regret, realizing his fiancee obviously was not waiting to greet him. What the hell, he thought. I'm 6 days late getting back. What should I expect?

He made his way slowly up to the porch, his B-4 bag laden with dirty laundry and the usual souvenirs of a trip out in the system. His back protested from the 14th bag drag in almost as many days; his head throbbed with fatigue. As he swung the door wide his nose caught the unmistakable aroma of a broiled steak. His tiredness evaporated as he threw the bag onto the landing and ran down to the kitchen. No Vickie? Wait, here's a note: "Cal, I had to give a lecture down at Monterey this weekend. Did you remember? Your scheduler said you were *finally* going to be getting in about mid-afternoon today. I'm sorry I couldn't meet you, but dinner's in the microwave (better living through radiation, right?). I'll be back Sunday night, and come straight over. I MISSED YOU! Love, Vic."

Rats, must have just missed her, he thought. He smiled in-

HONORABLE MENTION
1987 MAC FLIGHT SAFETY WRITING CONTEST

voluntarily at the thought of her figuring out how close she could cut her drive and still make it on time. A quick peek in the micro—yep, a beautiful steak, mushrooms, and baked potato. Well, the company is lousy, but the food is great, he thought. A few key strokes to start the magic reheating process, than a quick shower. Towel down, yank on some blessedly clean jeans (the other two pair could probably walk to the washing machine!), then sit down to the best-looking meal seen by mortal eyes. Wine with dinner? Why not? Vickie thinks of everything, there were even two chilled glasses in there—the optimist.

For once I'm back at bedtime, Cal mused. The trouble was, even having put on a massive feedbag, he felt himself starting to wake a little—the curse of the Pacific strikes again! Browse around the house for a book, what do I have that would put me out like a light? A stack of Vickie's philosophy stuff on the end table . . . Thomas Aquinas? *Summa Theologica?* Man, that should do it! Crash out on the waterbed, hit the light, and crack this beauty—I won't last 5 minutes.

Cal fell asleep with the lights still on, the book falling to the floor with an unnoticed clatter. The shadows of early evening lengthened in the room, and night fell.

Midnight! Seven vaguely human forms took shape around Cal's bed, staring first at him, then at each other.

"What the hell are we doing here, Av?" asked a female voice.

"Critique time. We let this one get away from us again, but not for lack of trying. We're definitely getting close, though. One more mission like this one, and he's ours for good! As for why we're here, well . . ." The figure bent to his right and retrieved the dropped book, then recoiled from it as if burned by the cover. "Damn! Why would he be reading THAT! I suppose that was enough to summon us, though. Guess we'll have to do tonight's business here."

The apparitions filed silently out of the bedroom and headed toward the kitchen. "Does this guy at least keep the makings of some sandwiches in this dump?" querulously inquired another voice.

"Looks that way, G.G. His girl seems to have done some shopping for him. Not the usual six-pack and leftover pizza in here, anyway."

They made themselves some snacks, grabbed a bag of Doritos from the pantry, then settled down around the living room. One raised its fingers, and, with a single snap, a fire roared to life on the hearth.

"Okay, let's get down to business. LuLu, why don't you start?"

"Fair enough. I didn't have too much chance to work on this guy this time around. Ever since he met that post-grad student from Davis, he's been behaving pretty well. I tried working with some of you toward the end of the mission, trying to stir up some get-home-itis, but he finally listened to the rest of the crew and took that divert into Elmendorf. Sorry, gang."

"Not your fault, babe. Av?"

"The usual. Our snoring friend in there isn't big into the black market stuff. He already had enough stereo equipment from the last two trips, and his girlfriend got so mad at him about the pseudo-designer jacket that he'll probably never buy that way again. I don't think I'll have any luck with him anymore, unless he gets rid of that girl of his. She's a good influence."

Angry mutterings of agreement. "Isn't that supposed to be *your* department, Jelly?"

A figure that was cramming a handful of pickles into its mouth started, then glared beligerently around the room. "You all know how hard I've been at him," it snarled. "So I haven't had a lot of luck with the 'love' angle. So what? He's been getting so wrapped around the axle with the success of his buddy in the squadron I figured I could lay off the boy/girl trouble and create some *real* fireworks."

Av chuckled appreciatively. "True enough. He's been getting awfully preoccupied with his friend making flight examiner, hasn't he? I'm glad you were able to keep him from being reasonable about it. If he realized the main reason he's still an instructor had to do with that long time out of the cockpit before his cross-training, he might be able to put it into perspective. Keep him warm about that, will you, Angie?"

The figure with its feet on the coffee table nodded assent. "He's a lot easier to handle when he gets tired, gang. Any chance of sending him back out on a trip before his girl gets back?"

A cheer went up: "BRAVO ALERT! BRAVO ALERT!" LuLu raised her voice over the din to say, "His scheduler wants to have some more time with his sweetheart, the softball player, up in Winters. It'll be a piece of cake to get him back on the schedule by Sunday afternoon. I just need one of you to get his post-mission crew rest waived somehow."

"All right," cried Av with enthusiasm. "We're getting off the track, though. What about your end of things, G.G.?"

The most obese of the wraiths belched lightly, wiped its chin half-heartedly, and sat forward. "I got him to fly three different times after over-indulging in the night spots. The trouble was, I never could seem to time it so both he and his copilot were in really bad shape at the same time. I was kind

of hoping the snack bar breakfast he pigged out on this morning would do it, but no such luck. Lots of stamina in this lad. Cast iron stomach, too. Remember, I got four of his crew sicker than dogs from it. It was a shame he didn't cramp up until after landing; he even had time to get into the hangar before . . ." A slightly vulpine smile. "Well, he just made it!"

"My turn," declared the most haughtily-visaged of the seven.

"No, I think it's old Lothar's turn. Somebody wake him."

"We'll have our chance with him again . . ."

One of the figures turned and shoved an elbow into a motionless form curled up in the Lay-Z-Boy. "Up and at 'em, pal! Show time!"

The recliner rocked slowly as the spirit stretched to its full length and yawned. "I can't add much . . ." it began.

"You usually can't," snapped its acerbic associate.

"But I can list my successes," the other continued serenely. "He didn't get a weather briefing at all going out of Diego; his pubs are hopelessly out of date; he blew off his second position report on the Christchurch leg; and he didn't request a radar monitor shooting that ILS into Elmendorf yesterday afternoon.

"Oh, yes. I also made sure the controller didn't bother to ask him. He decided he couldn't be bothered. It's a pity the loadmaster happened to see those mountains when he did, and it's a shame I couldn't keep him from saying something about it over the intercom . . . we'd have gotten the whole planeload for sure!" It promptly returned to its doze, chest regularly rising and falling.

"It's around to you, Angie. You and Pete had your work cut out for you, as usual. What's the story?"

"It's like this, Av," the figure with the superior air growled. "Angie can speak for himself, but I want it known that I went the distance this trip. We should have gotten him at least twice. The approach into Elmendorf, yeah, I could've kept him from listening to that scanner, but he wasn't preoccupied enough at the time. He was paying too much attention. Now for the full stop at homedrome, well, LuLu was drumming up as much interest as she could in planting it on the first try so he could get home to 'Miss Vickie,' and G.G. gave it the old college try with the midnight overeating and early-morning feed. I *knew* we had him! He was going to land long, and he was mad about it! The headquarters guy in the jump seat was just sitting there snickering at him, and I *knew* he was going to prang it in!"

The figure swallowed audibly, then concluded, "He went around. I don't believe it, but he went around. Angie didn't believe it—we had him so worked up from embarrassment, rage, and good old-fashioned hubris that I *knew* he'd try to make the landing! **HOW DID HE FIND IT IN HIMSELF TO DO THAT?"**

Every shape in the room shifted nervously in its seat. The silence thickened around them. Finally, Av sat up straight, brushing the chips from its lap.

"We lost this round, friends. Tomorrow is another day. The woods are full of MAC flyboys and flygirls that'll keep hearing us, and keep doing the things we can get them to do. This guy was lucky. Maybe he had a little extra help," it added with a significant glance at the ceiling, "but he sure can't go on expecting it. We'll have our chance again with him, or with one of his colleagues. They're only human. They can't *help* but let us screw up their lives!"

The meeting closed with general laughter. They roused their sleeping comrade, and put their paper plates in the trash can. They gathered around Cal's bed once more, casting wary glances at the abandoned book on the floor, its pages riffling gently back and forth through the discussion of the "seven deadly sins." Then, one by one, Lust, Avarice, Gluttony, Jealousy, Sloth, Anger, and Pride faded away in the gathering light of dawn . . . waiting for their next chance for a successful critique.

Captain Thomas A. Farrier is a 1978 Air Force Academy graduate. Prior to his present assignment with Directorate of Aerospace Safety, Headquarters Air Force Systems Command, he flew UH-1s with several organizations, most recently the 1st Helicopter Squadron, Andrews AFB, Maryland. Twice Honorable Mention winner in the MAC Flight Safety Writing Contest, Captain Farrier was selected MAC's Safety Officer of the Year (Primary Duty) for 1986.

Capt. Jeffrey A. Rodseth

Capt. Jeffrey A. Rodseth, 62 TAS, Little Rock AFB, Arkansas, was on a C-130 aircraft commander student training sortie on 9 Mar 87. After flying several low-level routes, his formation broke up to practice landings on a 3,500 ft x 60 ft asphalt assault trip. The student aircraft commander flew a normal traffic pattern and approach to the narrow runway. The landing was on speed in the center of the landing zone 200 ft from the approach end. The engineer recalled hearing a mysterious "thud" immediately after landing and the loadmaster reported a possible blown tire. Although there were no cockpit indications of a malfunction, the aircraft started rapidly veering right. Captain Rodseth directed the student to apply full left nosewheel steering and full left flight controls, but to no avail. (On landing, the torque strut that holds the twin tandem gear straight snapped, allowing the right gear wheels to caster.) Not being able to analyze the problem and seeing the aircraft careening dangerously toward the runway shoulder, Captain Rodseth immediately took control. He put the left engines into full reverse and began applying forward thrust on the right engines, hoping the aircraft would respond. The right gear began slipping off the paved surface just as the aircraft came to a stop 2,000 ft down the runway. The right main gear was canted 45 degrees outboard; the right wing and propeller dipped precariously as the aircraft sank into the soft shoulder. Further deviation from runway centerline could have been disastrous. Captain Rodseth's quick thinking and outstanding airmanship definitely merit the Excellence in Airmanship Award.

I Can Kill You . . . Because

By Capt. Thomas E. Aldrich
20 SOS, Hurlburt Field, Florida

The new pilot sat across the table from me. His gold bar was shiny; his wings were shinier. I detected a slight look of apprehension in his eyes as he waited for my opening remarks. A new arrival, this was to be his first flight since graduating from flight school. Although we had met briefly in the hall, this was our first opportunity to talk.

Formality has never been one of my strong suits, but today I had a message to get across. We

You'll Let Me!

were alone in the briefing room; no distractions, just two aviators. One career had already spanned a decade and a half, the other just beginning.

I cleared my throat and began. "Good morning Lieutenant Smith, I'm Captain Jones. As you know, I'm the Chief of Standardization for this squadron. What you may not know is that *I can kill you* quicker than anyone else. Why? Because you'll *let* me!"

He reacted just like all of the rest; eyes opening wider, and his lower jaw dropping as he slid back into his chair. As always, I let the words sink in for a few seconds before continuing. "I didn't say that to alarm you, Jim. I said it to get your thought processes on the right track before we take our first step toward the aircraft.

"Look at your wings. They're the same as mine. Nowhere do my wings say *Instructor* or *Examiner.* Nowhere do yours say *Student,* or *Copilot.* We both wear AVIATOR wings!

"Until now, everything for you has been a learning experience. The learning will continue until the day you unbuckle your seatbelt for the last time. You have an additional role now. You're a member of a flight crew. You aren't here to sit on your hands. You are here to fly and to assist me. I need your help. That's why there are two seats in our cockpit.

"There's an initial maturing process you'll go through for the next six months or so. My opening remark was intended to help speed up that process. Jim, during your previous training you were taught to put your complete trust in your flight instructor. You not only trusted his experience, but you respected his rank. You probably found it difficult, if not impossible, to question his actions. Now that you're in an operational unit, I want you to overcome that reluctance to question the other pilot's actions.

"Had we flown today without having this talk, you probably would have fallen back into the old familiar student-instructor relationship. If, during the flight , I were to make a minor deviation, you might assume I knew what I was doing. Minor deviations cause taxiing aircraft to strike poles, equipment, or other aircraft. Minor deviations *kill* people!

"Suppose you weren't flying with me today. Let's say you were to fly with a pilot whose reputation was, say . . . not quite perfect. Someone may have taken you aside and warned you about this individual. During your flight you would watch him like a hawk. You would question his actions and you would note any deviations from standard flight parameters.

"That's the paradox, Jim. You wouldn't let a "bad" pilot kill you, but you would let *me.* I don't want that to happen with me or any other pilot in the squadron. The safety officer can provide you with dozens of examples of what happens when crew coordination breaks down. In many aircraft taxi accidents, the pilot at the controls was on the opposite side of the cockpit from the obstacle they hit. It seems people just weren't talking to each other!

"As I mentioned before, there are two main barriers which prevent young aviators from questioning an aircraft commander's actions: rank and experience. Let's discuss those barriers a little further.

"Rank can be intimidating. How do you question the actions of a lieutenant colonel aircraft commander when you're only a second lieutenant? It's difficult, but sometimes necessary. A while back, our unit commander called us all together to discuss factors which cause accidents and what we could do to prevent them. When intimidation by rank was mentioned, our commander explained this barrier could be removed by the senior officer/aircraft commander. He sets the tone for the flight. Although it's imperative everyone

understand who's in charge, it's equally important the aircraft commander emphasizes the crew concept. During the mission briefing, he does this by defining each crewmember's role, and explaining exactly what he expects. He must stress that inputs from each crewmember are vital to a successful mission.

"Jim, you mustn't be reluctant to bring any safety of flight concern to the aircraft commander's attention. Should you encounter an individual who is unapproachable, or arrogant, or one who thinks he's running a one-man show, you'd better take some action. Come to me or the DO. If necessary, see the commander. Remember, respect the AC's rank, but never be afraid of it.

"The other barrier we need to remove is awe of the greater experience level. You may hear yourself ask, 'How can a person with so many years experience possibly make a mistake?' Well, it's easy. Complacency, distracting additional duties, fatigue, and countless other factors can cause a highly experienced pilot to make an error. Too often, accidents occur when both seats are occupied by senior aviators who dropped their guard because they each placed too much trust in the other pilot. It's not your task to analyze why the aircraft commander is deviating from normal procedure. It *is* your job to bring it to his attention!

"So how do you do that? *Tact* is the key word. You never want to put someone on the defensive, if you can avoid it. To get a positive response from your AC, refrain from making any statements which are demeaning. This rule applies to all crewmembers. Remember, it takes all of you working as a team to successfully complete the mission. Unfortunately, sometimes your questions or suggestions might be misunderstood or poorly received. You can tell by the tone of the individual's response, or from the look in his eye. Later, you can let him know you were concerned, but didn't mean to offend him.

"There is one more item we need to cover: *conflict in the cockpit.* Sometimes, two people just can't stomach one another. Hopefully, one or both pilots will discuss the problem with the DO. Over the years, I've seen two approaches for settling things when two people don't get along. A good DO will appreciate their honesty and will try to keep the two apart, if possible. This is necessary because there is NO ROOM FOR CONFLICT IN THE COCKPIT. However, another DO may just tell them to 'Quit acting like kids and start acting like officers.' (I've always wanted to find that DO's worst enemy and schedule them for about five hours of fun together in a cockpit.)

"Jim, when I use the term 'conflict,' I'm referring to those situations when one person violently disagrees with another. It's certainly healthy to discuss options and make your feelings known about any topic. I don't pretend to know the best way to do everything. When anyone on my crew can recommend a better way, I'll listen, and appreciate his suggestion.

"The day will come, however, when you just don't like what you see happening on a mission. You may discuss your reluctance, and cover the possible options. But then the aircraft commander selects a course of action with which you totally disagree. Assuming his actions aren't going to kill anyone, you must end the conflict. It's hard, but remember, he's in charge. Put your differences aside and support him. Dig out your checklist, review procedures, and help him any way you can. Your actions at this point will make a difference.

"Jim, I'm not telling you anything you wouldn't have learned on your own after six months or so. But we need you as a crewmember today, not six months from now. Think about what I've said. Pass it along to the pilots you train in the coming years.

"Now, dig out that briefing guide while I round up the rest of the crew. We've got a mission to fly." ★

Global Notes

The free world's most prestigious safety compendium *(The MAC FLYER,* of course) is relieved to announce the departure of yet another used-up wordsmith. Yes, Capt. Don Rosenberry (Editorious Alldonemous) moved on to other spheres of influence in December. He headed back to the "Real World" replete with aircraft not mounted on desk-platforms, exotic foods, adventure, travel, challenging experiences—ah!, but we digress. Even with the thrill of taking on new responsibilities as Chief of Safety at Yokota Air Base, Japan, nothing could compare to the times he had here prodigiously penning pages for plenary perusal. His new assignment immediately followed his submission of a new series of articles for *TMF* entitled "Reverted Rubber and You—A Pictorial Record." We wish him a speedy recovery and eternal tailwinds. Have a quality day, Don!

TMF's tenacious recruitment campaign finally bore first fruit in mid-October. With a little help from the body snatchers at MPC, yet another erstwhile editor joins the staff to make his imprint on *TMF's* legacy. Maj. Steve McCauley arrived from security assistance duty in Madrid, Spain, where he also instructed in the JUSMG-MAAG C-12. His flying career really began with helicopters however, flying special operations UH-1Ns and then Air Rescue Hueys. Later, following fixed-wing transition training, he joined the ranks of Big MAC in C-141s. He says he's delighted to have finally arrived here at Scott AFB, the epicenter of the MAC universe. But . . . can he type?

Not all rainy November morning at Scott are bad! Our newest *TMF* staff member showed up one soggy AM looking for a dry place to stay and we're keeping him. Capt. Dan Dougherty will fill a long vacant Associate Editor's spot on our staff. Dan spent the last two years on the MAC/LG staff, the first in maintenance and engineering, and the second as the LG's assistant exec. His background is filled with evidence of a man who couldn't hold a job. He started his military career as one of those 19-year-old Army warrant helicopter pilots in Vietnam. After giving five years to the Army, he attended college and ROTC'd his way into the Air Force. He's flown the WC-130 in Guam, and instructed in HC-130s at Kirtland. We're looking forward to his different, if not somewhat strange, outlook on MAC flying. ★

Left to right: Capt. Daniel T. Dougherty, Capt. Donald L. Rosenberry, Maj. Stephens F. McCauley.

Mishap With A Moral

Visibility 1/16 mile . . . Take A "Look-See?"

**Visibility 1/16 mile in fog . . .
Can we afford to take a "look-see?"**

All accidents involving loss of life are tragic. It seems even more tragic when events leading up to a fatal accident show *it didn't have to happen.*

Unfortunately, events in the following story *did* happen. As we review the factors we consistently arrive at the same bottom-line: *poor pilot judgment.* However, we can gain added insight by reflecting on personal and professional pressures which inspired a lapse in judgment. Accident investigators can only speculate in this case, but it seems an experienced pilot became entrapped by his eagerness to land at his intended destination—despite the fact weather was well below approach minimums!

History of Flight

On 5 November 1986, the evening before the accident, the Apache pilot filed an IFR flight plan from Pine Shadows Airpark (near Ft. Meyers) to Tampa, Florida. He estimated en route time as 40 minutes and requested a destination weather briefing. He received the following:

> Clouds 2,500 ft scattered. After 2300: Clouds 500 ft scattered, visibility—3 miles in fog; occasional ceiling—300 ft broken; visibility—½ mile in fog. After 0900: Clouds 1,000 ft scattered, visibility—5 miles in haze. After 1100: VFR.

(The forecast was revised later that night, and again early the next morning.)

According to his wife, the pilot retired about 2130, rose about 0500, and took off in VFR conditions at 0612 from an airport near their home. Once airborne, he contacted the Fort Myers FSS and received current Tampa weather:

> Indefinite ceiling 0 ft obscured; visibility—1/16 mile in fog; temp—71; wind—080 at 3 knots; altimeter—3006. Runway 36L visual range 1,000 ft, variable 1,600 feet.

At 0614, the pilot asked Miami ARTCC for an IFR clearance to Tampa, which he received at 0621. At 0634, Tampa Approach Control told him to expect an ILS approach to Runway 36L.

Two other airplanes, a DC-9 and a Cessna 172, were attempting to land at Tampa at that time. The first, Airborne Express Flight 110, was certified to conduct ILS approaches to Category II minimums; an RVR of 1,200 ft was required to begin the approach. (RVR was 1,400 ft when Flight 110 began the approach). The pilot of Flight 110 stated when he reached 150 ft, about four rows of approach lights were visible, and at decision height of 100 ft he couldn't see any approach, runway edge, or centerline lights. He executed a missed approach at 0637 and proceeded to his alternate.

The Cessna which followed Flight 110 was given an RVR of 1,200 feet. The Cessna pilot stated he saw three strobe flashers directly below his airplane at about 300 ft above the runway and, at his Category I DH of 200 ft, was in "solid" IMC. He therefore executed a missed approach at 0640 and proceeded to his alternate at St. Petersburg.

At 0641, the Apache pilot contacted Tampa Tower from SNORK intersection on the ILS localizer and was cleared to continue his approach. At 0645, the controller advised the Apache that RVR at touchdown was 600 ft and midpoint and rollout RVRs were 800 feet. The pilot acknowledged. (The Piper Apache is classified as approach Category A. The minimum visibility for the ILS Runway 36L approach at Tampa for Category A aircraft is 1800 RVR).

Meanwhile, the local controller was relieved by another controller. The second controller assumed a clearance to land had already been issued to the Apache, although it had only been cleared to "continue the approach."

At 0648, the Apache pilot told the controller he was executing a missed approach and next told departure control he would "like to go back and try it again."

When the Apache was on downwind, Tampa Approach reported approach end RVR of 800 ft, midpoint 3,000 ft, rollout 800 ft. The pilot said, "That three thousand sounds better I hope," and the ap-

proach controller replied, "Yes it does." TranStar 548, a DC-9, departed from Runway 36L at 0651, 2 minutes before the reported improvement in the midpoint RVR. The approach controller told National Transportation Safety Board (NTSB) investigators the increase in midfield RVR was "probably due to TranStar 548 departing." He didn't convey this belief to the Apache.

At 0703, when the Apache was 2.2 miles from the runway on his second approach, Tampa Tower reported touchdown RVR as 600 ft, midpoint 800 ft, and rollout RVR as 800. The pilot acknowledged the transmission. This was the last recorded transmission from the Apache.

Meanwhile, Pan American Flight 301, a Boeing 727 with 17 passengers and a crew of 6, was cleared by Tampa ground control to taxi to Runway 36L. (Pan Am's Operations Specifications required an RVR of 600.) Due to fog, taxi speed was slower than normal. When the jetliner was southbound on taxiway W, the captain noted "pockets" in the fog where runway edge and centerline lights were visible. (The distance between runway and taxiway centerlines is 406 feet.)

Courtesy: *Flight Ops*

Runway 36L and parallel taxiway viewed from approach end.

The Collision

As he passed taxiway W-2, the B727 captain looked up and saw the Apache coming out of the fog on a head-on collision course. The captain said the approaching airplane didn't appear to have touched down yet, but looked like it was in a "flaring" attitude. The captain immediately turned his airplane to the right. The first officer said the Apache pitched up and banked slightly left and may have been attempting a go-around. (Tire marks on the taxiway indicated the Apache touched down near the centerline and about 200 ft from the 727. Also, wreckage analysis revealed the Apache's gear was down and locked, but the flaps were fully retracted.)

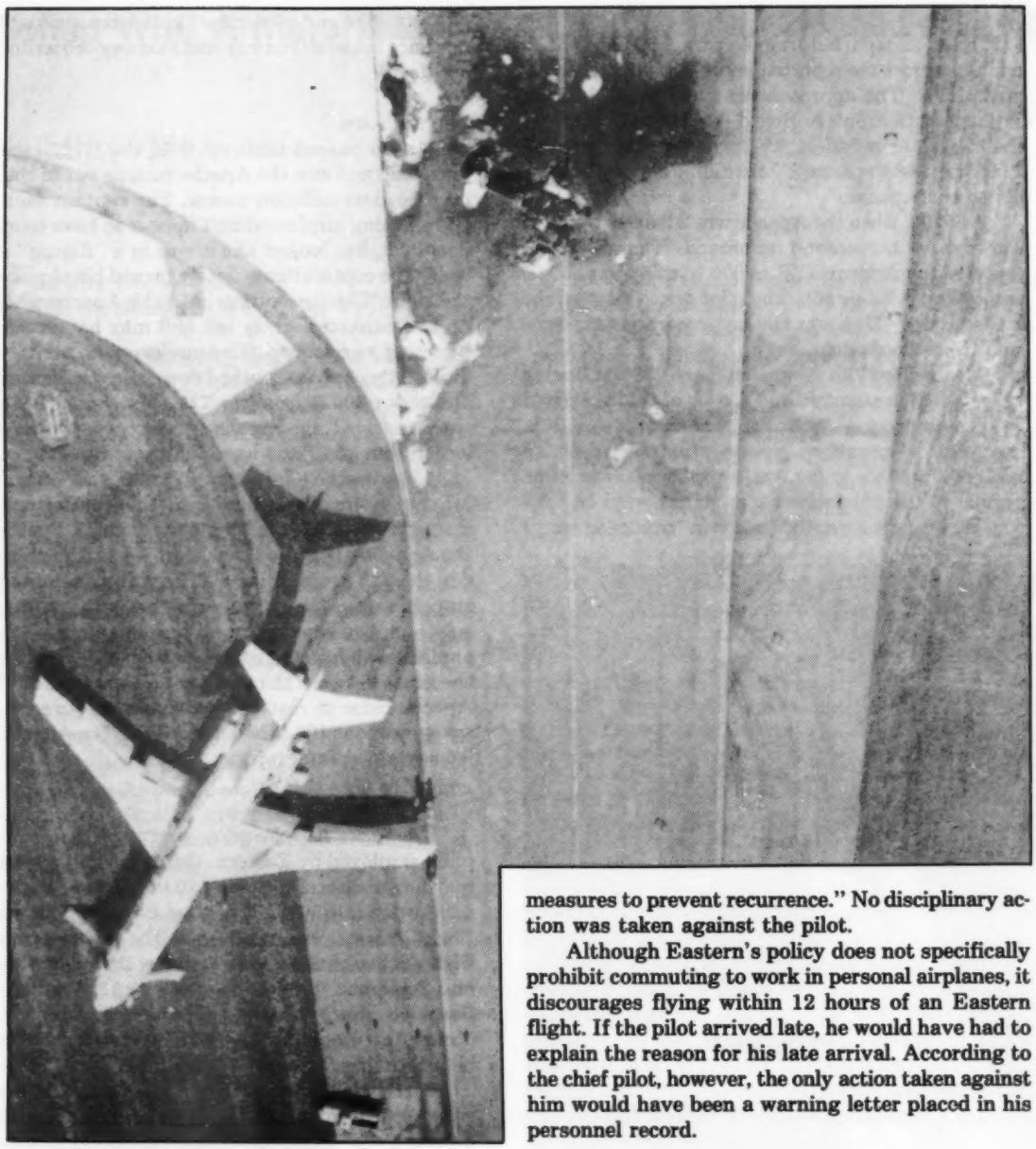
The Apache's left engine struck the 727 in the lower nose area, separated from the Apache, and remained imbedded just behind the radome. Fuel from the Apache's ruptured tanks ignited as it passed under the 727's wing. The 727 captain attempted to stop; however, his hydraulic brakes were ineffective. As he applied emergency air brakes, the first officer applied his hydraulic brakes and the 727 rolled onto the grass between the taxiway and the runway. The Apache came to rest and continued to burn on the taxiway about 100 ft behind the 727. The Apache pilot sustained fatal injuries.

Flight Crew Information

The Piper Apache pilot, a former US Air Force pilot, employed by Eastern Airlines since April 1965, had flown a total of about 20,000 hours, of which 4,360 were in the DC-9. He had flown 79.5 hours in the DC-9 the previous 90 days. The pilot's personal flight logbook indicated he last flew the Piper Apache on 1 September 1986. In the previous 12 months, he'd flown 58 hours in his Apache and had landed at Tampa International 33 times. He'd last flown 5 days before the accident.

On the day of the accident, the Apache pilot was scheduled to command Eastern Airlines Flight 164, a DC-9, from Tampa to Newark. Scheduled departure was 0805 and check-in time 0720. He regularly used his airplane to commute to Tampa, his assigned duty station.

Review of the pilot's personnel record disclosed a letter from the chief pilot reprimanding him for reporting late for a flight in 1981, delaying a departure by 4 minutes. The letter stated "the Company considers reporting late for work and causing a delay to be a serious failure to fulfill your job responsibility" and recommended the pilot "take corrective



Detail of crash site.

measures to prevent recurrence." No disciplinary action was taken against the pilot.

Although Eastern's policy does not specifically prohibit commuting to work in personal airplanes, it discourages flying within 12 hours of an Eastern flight. If the pilot arrived late, he would have had to explain the reason for his late arrival. According to the chief pilot, however, the only action taken against him would have been a warning letter placed in his personnel record.

Federal Aviation Regulations

Rules and restrictions governing weather minimums for civilian air traffic leave a great deal of latitude for pilot judgment. FARs state a pilot operating under 14 CFR Part 91 (general operating rules for other other than commercial carriers) is allowed to execute an instrument approach down to published DH even though reported visibility is lower than minimum visibility specified in the approach proce-

dure. If a pilot is operating an airplane under provisions of Part 121, 125, or 135 (rules governing air taxi and commercial operations), the pilot can't continue an approach past the final approach fix unless reported visibility is equal to or more than published visibility minimums for that approach. If visibility goes below published minimums after the airplane has passed the final approach fix, the pilot may continue the approach to DH and land if visual cues and flight visibility meet requirements specified by FARs.

Analysis

The sequence of events leading to the accident began with the pilot's decision to fly, rather than drive, to Tampa. By waiting until he was airborne before obtaining current Tampa weather, he deprived himself of the option to drive if necessary.

Concerning the conduct of the approaches, Tampa Approach Control radar data indicates both approaches flown by the Apache pilot were flown with a high degree of precision. Just inside the middle marker on his second approach, however, at a point where the aircraft should have been arriving at DH, the airplane moved right and lined up with taxiway W. At this point, the pilot would probably have been looking for visual references that would have allowed him to continue the approach below DH. If those references weren't immediately recognized, he should have initiated a missed approach.

The NTSB concluded the Apache pilot intentionally descended below DH in an attempt to visually identify the runway. He inadvertently flew right of the ILS localizer during the time his attention was divided between cockpit instruments and his search for outside references. The Board couldn't conclusively determine whether he realized before touchdown he was aligned with the parallel taxiway or thought he was landing on the runway. However, differences in width, surface color, and lighting between taxiway and runway should have been apparent to the pilot at some point during the flare and before touchdown, particularly since the pilot was very familiar with the Tampa airport. Therefore, the possibility exists the pilot may have recognized shortly before touchdown he was over the taxiway and accepted the situation because of a strongly perceived need to report for duty on time. The possibility also exists he recognized his mistake at the last minute and was initiating a missed approach when the accident occurred. Finally, he may have thought he was actually landing on the runway. Unfortunately, the evidence is insufficient to draw a conclusion on this matter.

The Apache pilot elected to descend below DH and attempted to land even though he did not see appropriate ground references. Since this decision was inconsistent with his experience and reputation as a capable pilot, the board examined his motives for doing so. After the first unsuccessful approach, the pilot could have diverted to an alternate, such as St. Petersburg. However, this would have caused him to be late for his scheduled report time. Therefore, the Safety Board examined Eastern personnel policies that would have applied to such a situation and might have influenced the pilot's decision.

The Apache pilot was probably aware Eastern Airlines policy discourages pilots from flying their personal aircraft within 12 hours of a scheduled flight. The chief pilot stated the pilot may have thought he would be disciplined for this second delay in over 5 years. The pilot may not have been aware of Eastern's 3-year limitation on disciplinary action for a second trip delay. Consequently, pressure to successfully land at the Tampa airport, rather than divert to an alternate, in order to report for duty on time at Eastern probably was largely self-generated.

Probable Cause

The National Transportation Safety Board determined the probable cause of this accident was the decision of the Apache to continue a precision instrument approach below published decision height when required visual references were not distinctly visible and identifiable. Contributing to the accident was the pilot's failure to obtain a predeparture weather briefing before choosing a means to travel to his destination.

Application to MAC

Temptation to make an approach in bad weather just to "take a look" is a natural by-product of the pilot community's shared, and constantly reinforced, "can do" attitude. USAF and MAC flight regulations prohibit pilots from beginning an approach when weather is below minimums. General aviation rules, however, leave the option of attempting an approach to pilot judgment. Thus, the final and crucial link in the decision chain rests squarely with the pilot in command. Advance weather planning and timely updates can prevent the necessity for such time-pressured decisions.

While this accident involved a single pilot, it again reinforces the value of the crew concept and delegation of tasks during an approach. Remember, exceeding personal limitations, crew limitations, or weather minimums might not result in an accident on each and every occasion. But eventually, it will.

Adapted From: NTSB/AAR-87/06

BRIGHT STAR '87

It's not always easy.

By Maj. Bob Simmons
21 AF/SE
McGuire AFB, New Jersey

Well, I must say, summer at Camp Get-A-Grip was fun. For those of you not familiar with the camp, it was in a lovely part of the ancient Egyptian forest. The average daily temperature was over 100, and night temperatures were in the low 70s most of the time. The sky was always blue, and only on occasion was the view cut by clouds. This lovely setting was the main base of operations for BRIGHT STAR 87. I had the great pleasure of deploying as COMALF Safety Officer. The first morning there, I found the area covered by thick fog. This quickly dissipated, and the air became thick with the smell of burned jet fuel. I toured the area and found that CENTAF Safety would be manned by a staff sergeant from MacDill AFB.

So, what did I encounter in the way of safety problems? Gee, I'm glad you asked! I looked up the ground safety man who had deployed with the combat support element from MacDill. (He's the one I mentioned earlier.) He was extremely knowledgeable in ground safety and had already established liaison with the medics and first sergeants who would be notified in the event of an incident. He drafted a letter for the "base commander" to sign on the subject of mishap prevention and reporting. He also did an excellent job surveying the area to eliminate potential hazards. Of course, that did not completely eliminate mishaps, but it did help to keep them to fewer than one per 100,000 manhours. Bravo! (And kudos for our Ground Safety NCO!)

However . . . .

An individual on his first evening in the exercise area was walking in the dark without a flashlight. He fell 10 ft into a revetment, but landed on his feet. Lucky, almost. He broke both ankles. A quick trip home for that one.

Then there was the cook who was helping drive tent stakes. Missing the stake on a swing, he hit his hand and broke a finger. Light duty for a few weeks.

Another cook was boiling water and spilled the pot. A nasty burn to the right hand required bandaging and, again, a few weeks light duty.

So far, no real problems. But you have to expect that sometimes you'll have to deal with someone who can't see the forest for the desert, (ha, ha). Picture a van parked on a hill overlooking a row of tents. Do I have your attention? Can you guess what happened? Yes, Marsha, the driver got out of the van and didn't shift to park or set the handbrake. The van rolled down the hill (gravity powered) and ran over the first tent. Thank goodness for a petrified piece of wood (It must have been a very frightened log!—Ed.) that lodged under and stopped the van, or the vehicle would have continued down through who knows how many tents. As it was, the vehicle came to rest on a cot which had been occupied only moments earlier. Only minor damage done to some personal items inside the tent. It could have been much worse.

With that in mind, let's look at what could have

prevented this incident. Only a couple of days earlier, some folks noticed vehicles parked on the hill but no one mentioned it as a possible hazard. A simple comment to one of the friendly safety types could have ended the practice quickly *before* the incident, rather than after.

Well, so much for the ground arena. Travel with me now to the flightline of this lovely non-oasis. We spent a lot of time around aircraft, as might be expected. This was, after all, a flying operation. So, what do you think we discovered—or, in this case, did not discover? Grounding points! There were none! No problem; T.O. 1C-141A-2-1MS-1 allows, under adverse conditions, refueling operations to be accomplished using bonding procedures (i.e. connecting a grounding cable between the aircraft and the refueling vehicle). This is allowed when approved ramp static grounding points are not available on nonmilitary (commercial) airfields, on host nation airfields, on snow and ice covered ramps, or during bare/remote base operations. Boy, some people think of everything! Or do they? Does that same passage allow for concurrent operations if there are no grounding points? Some say yes, and some say no. The question is being staffed at higher headquarters. Stay tuned for further guidance.

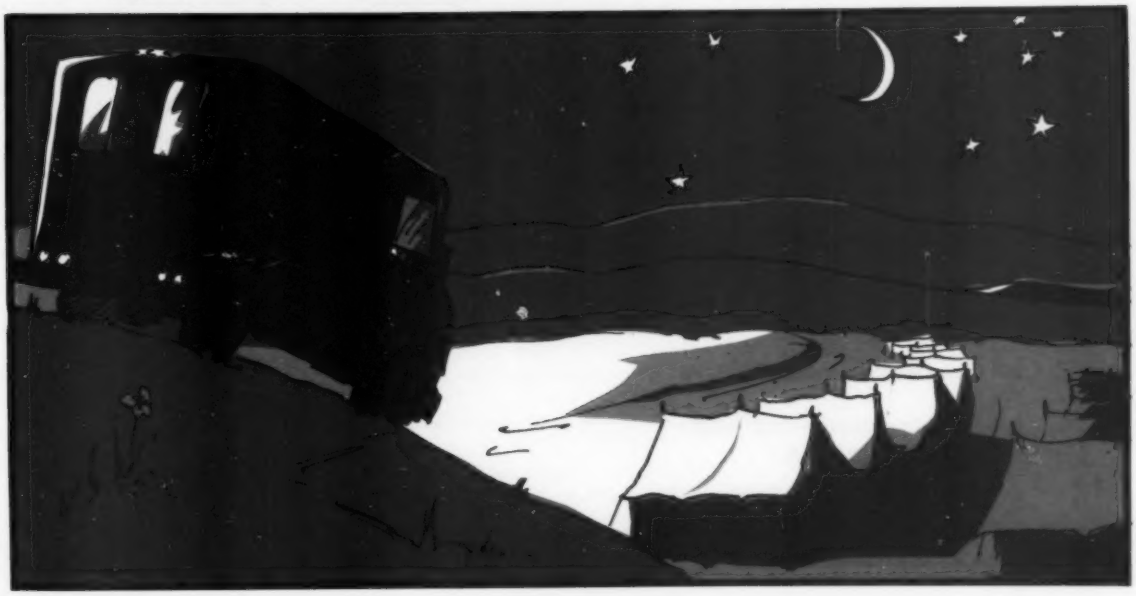
Let's leave that problem to confront another. I made a trip to the flight line to observe night operations. Of course I had my reflective gear, ear protection, and was carrying a flashlight. I approached an aircraft about to be refueled. There seemed to be no problem as the refueling vehicle arrived. The driver was an Egyptian who spoke very little English. I watched as the maintenance team began the operation. The driver bonded the truck to the aircraft, exactly as the T.O. requires. However, on closer examination, I found the clip attached to a painted surface. Not good! I had them relocate it.

But wait! Is my heart going to make it? The driver just used the other clamp to securely wedge the "dead-man" switch in the open position! I believe the expression is, "If Allah says it's your time to go, so be it!" No! Changes were made on the spot.

Next, I spoke with the refueling supervisor. When I asked where his checklist was, he pointed to the top of the fire extinguisher. (Well, at least he did have a fire extinguisher.) I asked him to show me a refueling procedure reference, and then he admitted that he did not actually have a copy of the checklist; nor was there one on the aircraft. The blue binder on the fire extinguisher was only there "for show." Of course, I contacted his supervisor and spoke with the ALCE Commander the next day.

Well, end of story. However, I'm certain that whoever follows me is bound to run into some of the same problems I've discussed here. People find it hard to learn from the past mistakes of others. There appears to be reluctance to mention it when they see something they believe may be unsafe. So, don't be one of those "strong and silent" types. If you see something you feel could be made safer, say something! Everyone will be better off. And you won't have it on your conscience if, heaven forbid, what you hoped wouldn't happen . . . does!

HAVE A SAFE DAY!



MORE GO-AROUND DATA

(Editor's Comments: Our C-5 go-around article in the September *TMF* was well received and we've had numerous inquiries for information pertaining to other aircraft. Here's the same info for the C-141. We'll continue to provide information as it becomes available.

Approach Speed	129 kts.
Ambient Temperature	-5°C
Gross Weight	200,000 lbs.
Field Elevation	1,000 ft.
Runway Length	9,000 ft.

Sequence	Event Time (Seconds)	Distance in Feet (Event)	(Total)
1. Flare, touchdown.	8	1700	1700
2. Deploy spoilers, select reverse idle.	3	560	2260
3. Roll for seven seconds, check ground tracking and braking, min. speeed 90 kts.	7	1170	3430
4. Decision - go-around.	2	300	3730
Power to TRT			
5. Close spoilers, retract.	6	970	4700
6. Flaps to takeoff, retrim stab. Accelerate to VRot	-		
7. Accelerate to lift off	2	320	5020

Courtesy of Bernie J. Dvorscak, Lockheed Georgia Co.

HQ MAC Safety Staff Directory

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Col. Robert A. Reichert, Deputy Inspector General

Directorate of Safety
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Col. Gary B. Koch, Deputy Director
Mrs. Rose M. Quirin, Secretary

Safety Education and Awards Division
(IGFE)3534/5542
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Maj. Stephens F. McCauley, Associate Editor
Capt. Daniel T. Dougherty, Associate Editor
Mrs. Frances A. Caldwell, Writer/Editor/Sfty. Awds. Mgr
Mr. Tommy F. O'Laughlin, Art Director

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Maj. William K. Curtis, Helo Sfty Mgr
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Mr. Karl E. Perry, Chief, Indus Branch
Mr. Donald V. Aamodt, Occ/Sfty Health
Mr. Frank J. Cleary, Occ/Sfty Health
Mrs. Sally Lopez-Tingle, Occ/Sfty Health
Mr. Joseph E. Profitt, Occ/Sfty Health
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MSgt. Paul G. Landgraf, Sfty Pers Prog Mgr
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(IFGN/2549)
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Capt. Richard P. Hall, Nuc Surety Officer

Explosives and Hazardous Cargo Division
(IGFX/5543)
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Mr. Delbert T. Hamilton, Expl Sfty Mgr

Autovon: 576 + Extension
Commercial: (618) 256 + Extension

TMF Takes A Checkride

How're we doing so far?

Every few years we, *The MAC Flyer* staff, actively solicit feedback from our readers. Periodically (no pun), we need to get a measure of our performance. This is one way we try to become more effective.

You saw *The MAC Flyer* Official Readership Survey (alias "MAC Form 290") on page 30 in the July 1987 issue, or you received one from your friendly wing safety folks. Hopefully, you also took a few moments to fill it in with some constructive comments to help us review and evaluate our endeavors.

The stack of responses we received were most interesting and varied, once again proving the "typical MAC crewmember" is candid, imaginative, outspoken, and has discriminating taste. Before analyzing those responses, let's review *TMF's* mis-

THE MAC FLYER OFFICIAL READERSHIP SURVEY

(Please circle for questions 1 - 7)

1 ABOUT HOW MANY ISSUES OF "THE MAC FLYER" HAVE YOU SEEN IN THE PAST 12 MONTHS?

0 1 2 3 4 5 (6) 7 8 9 10 11 12

2 HOW SOON AFTER PUBLICATION COVER MONTH DO YOU USUALLY SEE EACH ISSUE?

Early same month — (Middle same month) — Late same month — Month after — Even later

3 WHERE DO YOU USUALLY GET YOUR COPIES OF "THE MAC FLYER?"

Normal distribution — (Work Center) — Another person — Mail — Other (Stolen, etc.)

4 HOW MUCH DO YOU FEEL "THE FLYER" HAS INCREASED YOUR SAFETY AWARENESS?

A great deal — (Some) — A little — Not much — Not Any

5 ABOUT HOW MUCH OF THE MAGAZINE DO YOU USUALLY READ PER ISSUE?

Cover to cover — (75%) — (50%) — 25% — One or two articles — None

6 HOW DO YOU RATE "THE FLYER'S" OVERALL READABILITY?

Super — (Interesting) — Not too interesting — Dull

7 HOW DO YOU RATE THE MAGAZINE'S OVERALL APPEARANCE COMPARED TO OTHER SIMILAR TYPE PUBLICATIONS?

Bee-u-tiful — (Pleasing) — (Okay) — Less than Okay — Really bad

8 PLEASE RATE THE FOLLOWING FEATURES AND ARTICLES FOR CONTENT AND FREQUENCY

ITEM	CONTENT (1 = Yuck 5 = Great)					FREQUENCY		
	1	2	3	4	5	NEED MORE	OK	NEED LESS
TECHNICAL ARTICLES (Facts, figures, formulas for flying)			✓					
MISHAP WITH A MORAL (Feature stories about major mishaps)					✓			
FICTION FEATURES (Selling safety with imagination)				✓				
CARTOON / TOUCH'N'GO (Back cover)				✓				
BRAD "MAC" MAC KENZIE			✓					
QUICK STOPPERS (Short mishaps)				✓				
WRITING CONTEST STORIES				✓				
EXCELLENCE IN AIRMANSHIP ("Atta-crewmembers")					✓			
GLOBAL NOTES (Items of interest)					✓			
AFTER DEADLINES (Last minute items)			✓					
OTHER (You specify)								

9 MY AIRCREW POSITION IS: AK'4

10 TYPE AIRCRAFT QUALIFIED IN: ALL

COMMENTS (Expletives deleted)

Bring back C.R. and give that sissy Brad "MAC" MacKenzie the boot C-130 - NAV.

Very well done. Just considering an article for the magazine. HH-53 Pilot

Seasonal Items need to be covered earlier. HH-53 Pilot.

I don't read the magazine. C-12 Pilot.

MAC Form 290, APR 87

sion. Our charter is to publish a monthly magazine focusing on MAC flight safety-related subjects. The official name for our office (HQ MAC/IGFE) is "Safety Education and Awards." We are *not* a public relations magazine nor a command newsletter. We address MAC crewmembers and concentrate on mishap prevention through greater awareness and information. Whenever possible, we attempt to impart the safety message in an interesting, entertaining, and attractive format. (It's not just a job, it's a cause.)

Now, on to *your* responses. Most of you read about seven issues of the magazine per year, and 20 percent read every issue (cover to cover, we trust). A clear majority receive copies at the work center, and only 2 percent in the latrine (FSOs take note). Three fourths read *most* of each issue received, while 2 percent feel the magazine is "dull" or "really bad" (we'll try to do better).

TMF's primary goal is to increase safety awareness. Survey question number 4 asked, "How much do you feel *"The FLYER"* has increased your safety awareness?" Two thirds of you say it has.

About specific features in the magazine: The "Mishap With A Moral" is very popular, as is the "Excellence in Airmanship" feature. We get the message: most of you like to read about real people, real aircraft, and real events.

There's not a shred of doubt a great many of you sorely miss the infamous saga of one "C.R. Terror." We arrived at this subtle conclusion after carefully deciphering dozens of unprintable expletives sent to our office. Old C.R., however, was asked (in terms that even he could understand) to clean up his act and project a more professional image. Bad habits are tough to overcome, but C.R. will be permitted a guest appearance from time to time in the future.

Our new character, Brad "Mac" MacKenzie, received an equal share of feedback. Another purely fictional character, he epitomizes the exemplary standards of a truly professional MAC crewmember. Many of you candidly reported you find it dificult to identify with this "self-righteous toad." Notwithstanding the generous barrage of vegetables hurled by the reading audience, Brad is undaunted in his campaign to wing his way into the hearts of the MAC aircrew community and impart some valuable flight safety lessons.

There were a few specific requests asking for more coverage of C-130s, Helos, enlisted crewmembers, pilots, girls, guys, etc. We try, but we can't please everybody all of the time!

Some of you requested we start using higher quality paper and more colors. Please note the recent changes we made in anticipation of your request! CINCMAC interest, and strong support for *TMF's* role and impact on mishap prevention, led to upgrading the magazine's appearance. We hope you find *TMF* more eye-catching and readable. Overall, the written comments were praiseworthy. Many came from non-MAC crewmember communities (e.g. USCG, maintenance, and commercial airlines). We thank you, our readership, for your continued support and encouragement!

A final point: this magazine is edited and written by *TMF* staff. However, there are *few* of us, compared to *many* of you! Your stories give *TMF* that personal touch which you have come to love and enjoy.

We especially want our crewmembers to share their experiences in these pages. So, all you pilots, navigators, engineers, loadmasters, EWOs, sensor operators, gunners, scanners, P.J.s, etc., etc., let us hear from you. If you have a story to tell but are worried about sentence structure, punctuation, spelling, and all that stuff, don't be—that's our job. We'll cross the *t*, dot the *i*, and then we'll put *your* name under the title. So, don't be bashful, *tell us your story,* and see your name in print in your very own magazine! ★

"Good magazine. Keep up the good work." C-130 Pilot

"How about more articles related to loadmaster duties." C-130 Loadmaster

"Even we non-rated like good articles. I've read this pub for years...learn about safety and, more importantly, understand job of other AF members." Desk (non-rated)

"Bring back C.R. Terror and give that sissy Brad 'Mac' MacKenzie the boot." C-130 Navigator

"Overall, publication is interesting, readable, sometimes amusing, informative, and somewhat instructive. Your interest in reader preferences is greatly appreciated." B-747/L1011 Captain

"Very well done. I've considered doing an article for the magazine." HH-53 Pilot *(Do it!—Ed.)*

"Seasonal items need to be covered earlier." HH-3 Pilot

"*TMF* Instrument Quiz should include more questions on en route operations." C-21 Pilot

"I don't read the magazine." C-12 Pilot. *(Shame on you!—Ed.)*

Safety Frustrations

Why do we do these things?

By Lt. Col. R. Todd Schwenke
66 ECW
Sembach AB, GE.

In the "wonderful world of safety," we hear all sorts of buzz words applied to describe accidents and their causes. Words such as *spatial disorientation, complacency, cognitive flexibility, task saturation, channelized attention,* and *situational awareness* are but a few of the phrases bandied about whenever we're pointing the causal finger in attempting to solve the mishap puzzle. While all these words have been used, there is a phrase I've yet to see—*task accomplishment immaturity.* After 14 years in safety, this is one cause I feel applies to a great many flight mishaps.

What do I mean by task accomplishment immaturity? Most all jocks—me included—graduated from UPT and went to their first assignment as a new slick-wing pilot with a great amount of zeal but with some degree of trepidation. Would we be able to hack it in the Air Force world outside of Air Training Command?

As you gained experience and confidence, you probably started experimenting with the aircraft to determine your personal limits. You may have stuck to authorized maneuvers, but if my own experience is any teacher, you made one or two moves you knew would get you in hot H_20 if anyone ever found out. You may have flown lower than authorized, pressed the weather, performed an unauthorized maneuver or two, flown with less than 12 hours between bottle and throttle, self-medicated, or done any one of a hundred other "aircraft no-nos."

Why did we do these things? I assume it was due in part to the rebellious growing-up syndrome and in part because of some inner need to prove to ourselves we *could* really hack it. Whatever the reasons, we continued in this way until we gained that inner self-confidence that comes only after reaching a comfortable level of maturity and flying ability we were personally happy with. Most of us were fortunate and gained that level without seriously risking ourselves or our aircraft.

But for others, that level hasn't yet occurred and may *never* happen. Hopefully for those folks, they'll be caught and stopped before they do irreparable harm to themselves, their aircraft, or anyone else.

"Task accomplishment immaturity" can further be explained by relating it to driving a vehicle.

Why is it those in the "25-and-under" age group are involved in more vehicle accidents? They are at the peak of their physical abilities; as a group, they receive the greatest emphasis from safety personnel and, in most cases, they are relatively intelligent. Yet they *still* have the greatest number of motor vehicle accidents. Task accomplishment immaturity at its best!

I contend we all go through this period of task accomplishment immaturity. No matter how much harassing, pleading, or guidance we get from the safety folks, everyone seems determined to continue pressing their abilities until finding their own level of self-confidence. This will happen anytime we change aircraft type or even purchase a new vehicle. *But,* there's hope for most of us. The experimentation drive lessens as we get older and wiser.

As a safety officer, pilot, auto operator, and caring person, I'm not confessing to past sins. Nor am I advocating violations of tried and true rules. I'm merely attempting to explain what I see as one of the most *frustrating factors* all safety personnel must deal with when running *any* mishap prevention program.

Our job is to *prevent* mishaps, not merely *report* them!

Courtesy: *Airscoop*

Flying-Hour Milestones

20,000

MSgt. Alma L. Baker, 301 MAS

10,000

CMSgt. Carl J. Chop, Sr., 8 MAS
CMSgt. Karl E. Krieger, 187 TAS
SMSgt. Harry A. Thatcher, 729 MAS
MSgt. David L. Brock, 300 MAS
MSgt. Monte E. McClure, 300 MAS

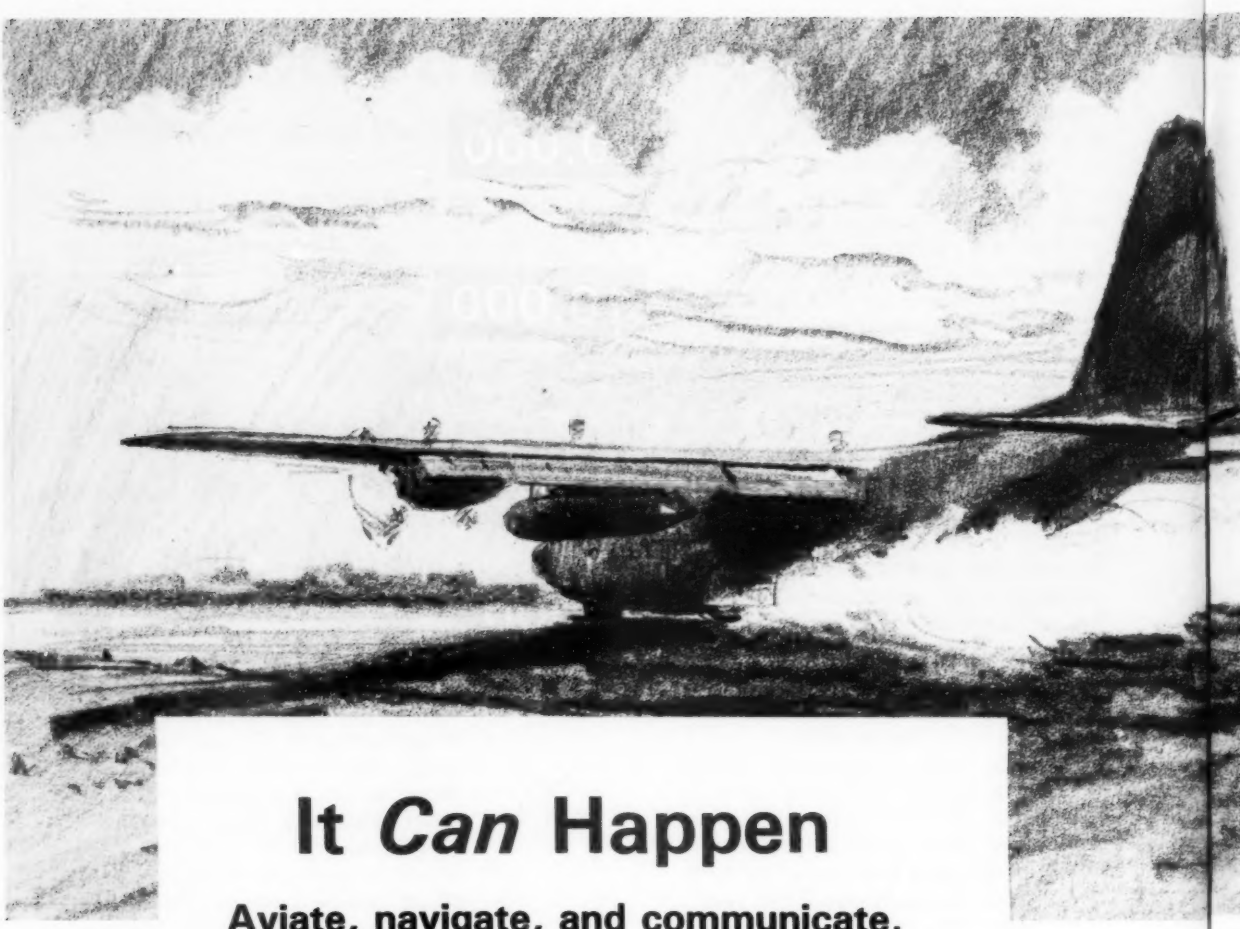
5,000

Lt. Col. James F. Kolonoski, 6 MAS
Lt. Col. Claude R. Lamoureux, Det 2, 1400 MAS/CC
Maj. John A. Blackburn, 328 TAS
Maj. Joseph D. Hawes, 130 TAG
Maj. Richard L. Hunter, 130 TAG
Maj. Jerry D. Miles, 301 MAS
Maj. Roger C. Nyberg, 187 TAS
Maj. Rhonie R. Reed, 187 TAS
Maj. Harvey J. Vance, 187 TAS
Capt. Frederick J. Becht, 56 MAS
Capt. Roger E. Strasburg, Jr., 33 ARRS
CMSgt. James S. Cavendish, 130 TAG
MSgt. Johnney Crittenden, 729 MAS
MSgt. Larry M. Foster, 313 MAS
MSgt. Enzo Grilli, 911 TAG
MSgt. Arthur D. Guyton, 756 MAS
MSgt. Terry L. Happ, 729 MAS
MSgt. Steven R. Hillebert, 301 MAS
MSgt. William A. Hodges, 6 MAS
MSgt. Jimmy D. Holcroft, 185 TAS
MSgt. Bruce A. Jones, 313 MAS
MSgt. Dennis C. Smith, 729 MAS
MSgt. Daniel L. Yepes, 729 MAS
TSgt. Charles W. Evey, 57 MAS
TSgt. Marlin P. Ghelfi, 8 MAS
SSgt. Curtis Massey, 773 TAS
SSgt. Roy G. White, 53 MAS

2,500

Lt. Col. Thomas C. Marsh, 31 ARRS/CC
Capt. Robert S. Clegg, Det 2, 37 ARRS
Capt. David L. Tennis, 1550 FTS
MSgt. Dane S. Luckey, 1551 FTS
TSgt. Donald J. Kiley, 1551 FTS

Ranks and units are those at time of award. See MACR 900-3 for details on how to apply for your own milestone award.



It *Can* Happen

Aviate, navigate, and communicate.

"Okay, MacKenzie, you've finished with the hospital and the safety folks, now it's time to tell me the story. What the hell happened out there?" asked Col. Rogers O. McNarty.

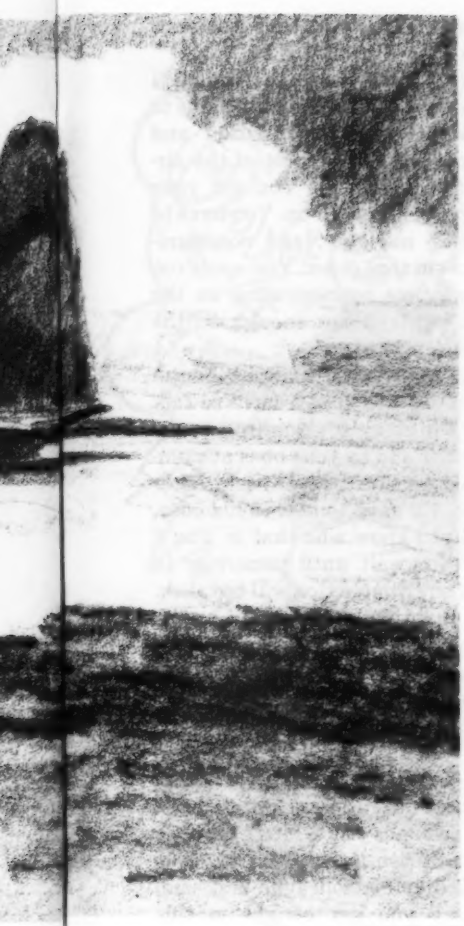
Before replying, Mac took a deep breath, all the while thankful he didn't work fulltime for this colonel. No wonder everybody calls him 'McNasty.'

"Well sir," he began, "we were on a Phase II Tactical Upgrade with a formation airdrop followed by single-ship pilot pro on the assault strip.

"Charlie here," he said glancing at Capt. Charlie Kingman, "made three good assault landings. While we were turning base on the fourth, Charlie said he had a problem with the throttles sticking at about two inches above flight idle. Well, I didn't want to continue the assault landing with that problem, and there was another airplane on the main runway, so I told Charlie to fly through final for a left 270-degree turn to line up with the main runway. I called tower to tell them what was going on and the flight engineer went under the flight deck to see if he could find what was causing the binding. Charlie said something about being worried about having enough power so we checked each throttle and found only 1 and 2 stuck. He said he'd only use 3 and 4 for power to land. I guess that was about the time I said we'd stick with 50 percent flaps for go-around just in case the runway didn't clear in time."

"Sounds like that's when things started going wrong," interjected Colonel McNarty.

"Looking back, it might have been, sir. We could have selected



100 percent flaps on final, or after touchdown, to slow us down and offset the extra power 1 and 2 were producing. But, I guess I had the go-around problem stuck in my head."

"Judging from the results it looks like your whole brain was stuck—in reverse. Keep going."

"Uh, yes sir. We stabilized the airspeed at 130 knots turning final—approach speed was 126 knots. About this time the engineer came back up and said he couldn't find anything mechanically wrong. Charlie touched down about 1,000 ft down the runway, about 25 knots hot. That's where the 50 percent flaps and excess power from 1 and 2 caught up with us. Charlie brought numbers 3 and 4 back to flight idle and checked brakes. We found 1 and 2 were still stiff but they could move, so they were brought back but were still a little above flight idle.

"When we came abeam taxiway 3 we were still doing about 60-65 knots. Charlie applied brakes but said he didn't feel them working. I told tower we'd continue to taxiway 2, but since we couldn't slow below about 45 knots, we kept going to taxiway 1 off the hammerhead. Charlie kept braking and put all throttles in ground idle during the turnoff. Because of the turn, the taxiway upslope, and applying reverse thrust, we finally slowed down.

"That's when the fire chief notified tower we had smoke coming from both wheel wells. We feathered the props and the loadmaster opened the door, jumped out, and ran to put a chock in front of the nosewheel with the airplane rolling. When the nosewheel hit the chock, we bounced back and, due to the slope, the airplane started rolling backward on the taxiway. The loadmaster was able to grab the chock again and put it behind the nosewheel. Charlie set the parking brake, called for evacuation, and we all got out."

"Sounds like you let it get out of hand, MacKenzie. The Dash One says to not move a binding throttle. You certainly ignored that warning."

"Well, you're right sir. We got caught in a dilemma; whether to strictly comply with the book or not have power available to complete the maneuver we'd started. We had to move the throttles to stay airborne. Once we discovered only two throttles were binding, we'd have had to shut down two engines on the same side, switch to two-engine procedures, suffer through loss of the utility system, and cope with asymmetrical thrust problems on short final. Plus, there was another airplane on the runway and a go-around was likely.

"When we got on the runway, we'd have had the same problem with directional control by shutting down the engines then. We didn't have any directional control problems, so I felt we could cope until we slowed down. Once we found the throttles could be moved somewhat, I didn't want to go to ground idle because of the excessive touchdown speed; you know, above a hundred knots. I'll admit, sir, the extra speed and the throttles remaining in flight idle made for a long rollout. When it became obvious we'd have to go to the end and began having some directional control problems we channelized attention on making the turn and clearing the fire trucks."

"This question has been eating at me since the beginning. Why did you let Kingman make the landing? You were obviously the most experienced, and also the aircraft commander."

"Yes sir, uh, I felt Charlie was handling the aircraft real well today, and I had confidence in his ability. I had to monitor our turn, try to resolve the binding problem, and talk to tower all at the same time."

"I see your reasoning, MacKenzie. Now I'm going to tell you where it comes up a little short:

"I know you thought you had an emergency on your hands because of the binding throttles. But then you let poor planning compound the problem. Little of what I've heard indicates any strong

direction from the aircraft commander—you. When the binding problem first came up, you put more effort into talking to tower and Kingman than into analyzing the problem. A little analysis would have given you time to plan the landing and after-landing procedures plus explain what you expected from each crewmember. From what you told me, you didn't discuss the option of using a 100 percent flap setting on short final when landing was assured or even after touchdown. Worrying about a go-around is fine, but you also have to think about what would happen if you didn't. You had no plan for how to deal with the excess power once you landed. The extra flaps would have made a great 'speedbrake' and wouldn't have contributed to any control problems.

"I didn't hear you say anything about why you didn't go to ground idle before the turnoff. You couldn't make the first two turnoffs because you were too fast, but you insisted on using brakes only, even after you knew the throttles would move. You evidently didn't discuss shutting down engines as a last resort, or what would be required afterward if you did. You didn't cover all your options. I know there's not always time to do that, but this time I think there was. Finally, Kingman ordered evacuation. But you were the AC, that was your job.

"Overall, I see an airplane I can't use for a while, simply due to lack of crew coordination and leadership on the part of the aircraft commander. You got your priorities screwed up. You have to aviate, navigate, and communicate—in that order. You spent too much time concentrating on the last two and not enough on the first.

"My DO is coming in about 5 minutes, and then I have to talk to Kingman's squadron commander and to your boss at numbered Air Force, MacKenzie. After that, I'll have to talk to his boss, and you know who that is. You'll have to wait until tomorrow to find out what action will be taken. I'm just thankful it wasn't worse. Replacing four main gear wheels, tires, brakes, and struts isn't cheap, but at least no one got hurt. Okay, that's all."

Mac and Charlie rose, saluted, pivoted on rubbery legs and left the colonel's office. After taking a deep breath in the hallway, Mac looked at his colleague and said, "Sorry you got caught in this Charlie."

"I thought he'd be tougher on us than that. We didn't exactly shine out there today. We'll agonize over it, thinking we should've done this or should've done that, but all we can do now is learn from it and go on. Who knows, maybe what happened to us today will generate some changes in training or procedures that'll benefit other guys someday. You're in safety, so you know that philosophy."

"Yeah, I know, but that doesn't make it any easier to live with. Let's get out of here, I've had enough of this building today." ✭

Writing For *The MAC Flyer* Changed My Life!

"If you've got so much to say,
my friend," the pilots said to me,

"Why don't you write it down in
ink to serve humanity?"

Their suggestion to become a
scribe appealed, in fact, to me

And so I racked my brain all
night in creative secrecy.

The initial product of my work
was scarce a proper thing

To grace the pages of that book
whose praises now I sing.

I tore it down and ripped apart
each verb and noun and phrase,

And glued together all the scraps
and left it lay for days.

But when again I read the words
that once had seemed so fine,

I winced with pain to think that
all this awkward tripe was mine.

Where were the beautiful flowing
lines that I had penned last week?

What caused my plot, so tightly
drawn, to sag and now to creak?

But inspiration came again from
an unexpected source,

For in a dream, C.R. Terror came
with words profane and coarse,

And upon the morn I realized that
this must be a sign

So I started over once again and
found a new design.

I stole a phrase and snitched a
plot, no writer was ignored,

To write a story was my goal and
finally I scored.

When I found out that I had won
a place of great renown,

I bought the drinks and rang the
bells, I painted all the town.

So now I stand upon the stage, a
published man you see,

What doors, once closed, will open
now with opportunity?

How can I turn again to life that
seems now drab and gray?

What can compare to ecstacy
brought this most happy day?

I thank you all for what you've
done, you are a wonderous crew,

And blessings on the chubby guy,
and little Blinky too.

Editor's Note: Need we say more? Just follow the rules below.

Resurrected from the *TMF* archives; written by Capt. James H. Ehlers.

THE RULES

The 1988 MAC Flight Safety Writing Contest is conducted according to MACR 900-3 and these rules. All entries must be original, unpublished, and postmarked no later than 31 March 1988. Stories must be between 1,000 and 3,000 words long (about 6 to 14 double-spaced typed pages). Poetry should be about 75 to 100 lines. Entries must contain an *aviation safety/mishap prevention message*. Manuscripts must be double-spaced, typed and submitted in two copies. Identify entries by title only and attach a cover sheet showing the author's name, address, duty phone number and unit. The cover sheet must contain a brief autobiography.

The contest is open to anyone. Entries qualifying under the above rules earn their author a free one-year subscription to *TMF*. However, contest prizes (desk sets and plaques) may only be awarded to military members and civilian employees of the Department of the Air Force or Air Reserve Forces. Other entrants may be selected for Honorable Mention in a special category. All winning stories will be published in *TMF*. Entries should be addressed to:

Flight Safety Writing Contest
HQ MAC/IGFE
Scott AFB, IL 62225-5101

QUICKSTOPPERS

SLIP-SLIDING AWAY

This C-5 crew discovered that making a 180-degree turn while taxiing isn't always as easy as it sounds. The mishap crew taxied out of parking to a 148-ft wide runway. The plan was to taxi to the end where additional pavement was available. The aircraft commander made a small left turn to position the aircraft as close as possible to the left edge of the runway, taking advantage of every inch of available pavement.

When the marshaller signalling straight-ahead saw the left turn, he immediately noticed the engines would be positioned over sand. He then directed a right turn, intending only to straighten the aircraft. The aircraft commander, however, observed the right turn signal and interpreted it as direction to begin the big turn. Therefore, he started the 180-degree turn prematurely.

In keeping with human nature, when the additional marshallers saw the aircraft begin to turn, they began giving right turn signals (who's marshalling whom?) to the aircraft commander. As the turn developed, the aircraft commander noticed they were getting close to the edge and stopped the aircraft. He deplaned a scanner, who reported the nosewheel 7 ft from the edge and recommended continuing.

The marshallers, naturally, concluded the scanner was ensuring clearance and, as the aircraft began moving, they resumed right turn signals. Things were looking tight when the aircraft commander stopped the aircraft again for a clearance check. This time, the scanner reported the nosewheel 1 ft from the edge but believed the turn could still be accomplished.

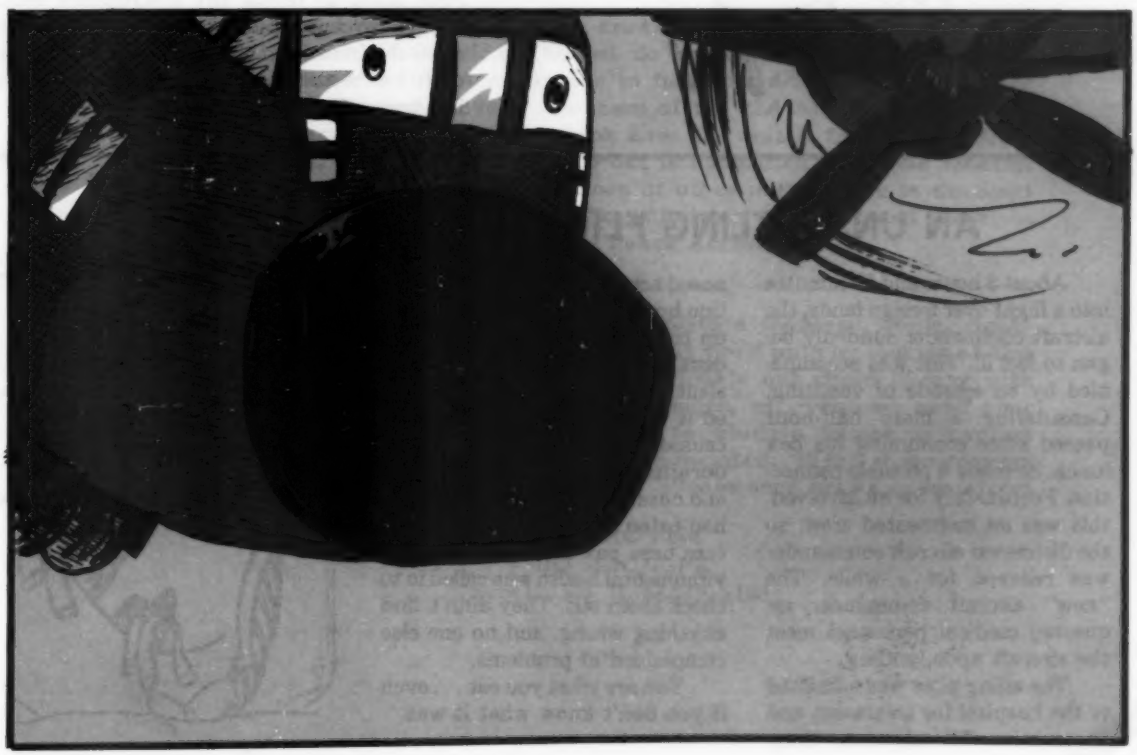
As the aircraft again began moving forward the nosewheel began to slide on the sand covered surface, and a piece of the pavement gave way. Attempts to back the aircraft back onto the runway were unsuccessful. The nosewheel came to rest 2 ft from the pavement and buried 6 inches in sand. A maneuver like this, at the edge of the envelope, obviously requires everyone understand what's going to happen. A few words before might prevent a lot of words on a report after.

SYNCHRONIZED FLIGHT

Crewmembers are known to do things together, a natural result of the camaraderie developed from professional association, but this C-130 crew coordinated to extremes. Our heroes were flying a treacherous local proficiency mission and had just completed a normal stop-and-go landing. They took off and things began to go awry. At 80 ft, the pilot found the controls more difficult than usual to deal with. Just as his attention turned to physical development efforts, the loadmaster compounded his fears by complaining of hydraulic fluid emanating from the aileron boost pack area. A few seconds later the loss was revealed by hydraulic warning lights—all four of them!

As the problem developed, the pilot found he needed to exert extraordinary force to move any flight controls. At the same time, the loadmaster reported he was now ankle-deep in hydraulic fluid. The pilot decided a controllability check was in order and initiated a straight-ahead climb. Once the aircraft began the climb, it required extreme control force to arrest it. The crew declared an emergency and aligned the aircraft for a 10-mile straight-in. On final, the pilot and copilot coordinated control movements while directing the engineer to make throttle adjustments. At last, with perhaps some divine assistance, they safely landed the airplane.

The reason for the boost pack assembly failure wasn't immediately identified, but superb crew coordination certainly was! O.K. guys, left turn on three. One . . . two . . . .



STUBBORN TO THE END

The C-5A being radar vectored to ILS final to runway 27 of this eastern base, with autopilot disengaged, entered a right 30-degree bank turn. When the pilot attempted to roll out of the turn, the control wheel would not turn. By forcefully turning the yoke to the left, the pilot was able to shear the pins in the aileron linkage and regain aircraft control. Although the pilot's control wheel returned to center, the copilot's stubbornly remained turned to the right (centering spring is in the left quadrant). As the pins sheared, the crew heard a popping noise, the binding disappeared, and both yokes moved freely. The pilot and copilot determined they both had adequate control, reviewed procedures concerning flight control malfunctions and elected to return to home base for maintenance.

Troubleshooting aileron rigging and mechanical linkages for both right and left ailerons failed to reveal any discrepancy which could have caused binding. The automatic flight control system also checked properly. The aircraft was returned to the air shortly after and has been behaving ever since.

AN UNSETTLING FLIGHT

About 3 hours and 30 minutes into a flight over foreign lands, the aircraft commander suddenly began to feel ill. This was accompanied by an episode of vomiting. Considering a mere half-hour passed since consuming his box lunch, he made a possible connection. Fortunately for all involved, this was an augmented crew; so the distressed aircraft commander was relieved for a while. The "new" aircraft commander requested medical personnel meet the aircraft upon landing.

The ailing pilot was admitted to the hospital for treatment and observation. The physician diagnosed acute gastrointestinal infection brought on by food consumed up to 72 hours prior to the incident. Unfortunately for us supersleuths however, the doctor stated it was unlikely the box lunch caused the attack (due to the short duration between consumption and onset of symptoms). The pilot had eaten breakfast at the departure base pax terminal, so bioenvironmental health was called in to check them out. They didn't find anything wrong, and no one else complained of problems.

You are what you eat . . . even if you don't know what it was.

After Deadlines

NOW GET THIS STRAIGHT!!—Due to some imprecise information, we stated in the November 1987 *TMF* After Deadlines section that some active duty crews flew firefighting missions during recent California forest fires. Such was not the case. No active duty crews flew any firefighting missions.

THE BIGGEST NOSE JOB EVER!!—The last of the early version "Roman Nose" C-130As, a veteran of over 30 years rugged worldwide service, has received a well-deserved "face-lift" and a new lease on life. Now on duty with the Rhode Island Air National Guard, the airplane, tail number 54-1631, received the radome modification recently when its old radar system was replaced with a modern solid state system. Its old "flat" radome was replaced with a "pinnochio nose" similar to all other C-130s. The airplane went into service with the 61st Troop Carrier Squadron, Dyess AFB, Texas. For 3 years beginning in 1965, the airplane was assigned by USAF to the South Vietnamese government where it flew combat support missions in Southeast Asia. Following its return to the U.S. it saw service with Air Reserve units in Texas, Pennsylvania, Missouri and ANG units in Tennessee and Michigan prior to its current Rhode Island assignment.

KEEPING THE PEACE—That's what crews from the 30th, 18th, and 6th Military Airlift Squadrons helped do recently when they delivered more than 600 U.S. Army troops to the Sinai desert in late October and early November 1987. Members of the 82d Airborne Division at Fort Bragg, North Carolina, took over the watch from troops from Fort Ord, California. The swap-out is conducted every six months. The U.S. soldiers, along with those of other nations, are in the Sinai to observe and report on traffic activities of Egypt and Israel in accordance with the Camp David Peace Accord.

SEND US YOUR PHOTOS!!—A picture is worth a thousand words, right? We at *TMF* agree with that old adage, as you'll note by looking at this month's back cover. We're trying to update our photo library with more current aircraft, missions, messages, etc.—but we need your help. Any MAC-related photograph to which a humorous caption might be applied will be gratefully appreciated. If the photo conveys a flight safety message, better yet! Please send prints or negatives to:

The MAC Flyer
HQ MAC/IGFE
Scott AFB, IL 62225-5101

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"That new hatch in these stretched models really comes in handy."